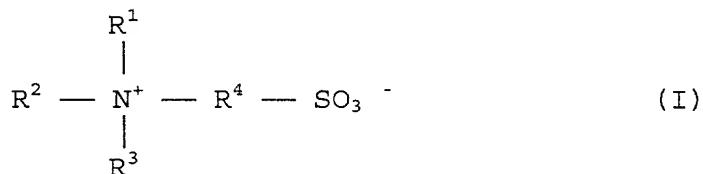


Patent Claims

1. Recording material having a dimensionally stable, two-dimensional support and a negative-working, 5 radiation-sensitive layer which comprises a diazonium salt and a polymeric binder, characterized in that the layer comprises a sulphobetaine.

2. Recording material according to Claim 1, 10 characterized in that the radiation-sensitive layer comprises a combination of a polymerizable monomer or oligomer and a photopolymerization initiator.

3. Recording material according to Claim 1 or 2, 15 characterized in that the sulphobetaine conforms to the following formula I



25 in which R^1 to R^3 are identical or different and are substituted or unsubstituted and/or mono- or polyunsaturated, acyclic or isocyclic hydrocarbon radicals having from 1 to 16 carbon atoms, in which one or more methylene groups may be replaced by $-\text{O}-$, $-\text{S}-$, $-\text{NH}-$, $-\text{CO-NH-}$ and/or $-\text{O-CO-NH-}$ groups, and, in the case of the acyclic radicals, each two thereof may be linked to one another to form a saturated or 30 unsaturated ring, and

35 R^4 is a substituted or unsubstituted (C_1-C_6) alkanediyl group.

4. Recording material according to Claim 3, characterized in that at least one of the radicals R¹ to R³ is a methyl radical.

5 5. Recording material according to Claim 3 or 4, characterized in that two of the radicals R¹ to R³ are linked to one another with formation of a five- to seven-membered ring, preferably a morpholinium or pyridinium ring.

10 6. Recording material according to Claim 3, characterized in that the radical R⁴ is a substituted or unsubstituted ethane-1,2-diyl, propane-1,3-diyl or butane-1,4-diyl radical.

15 7. Recording material according to one or more of Claims 1 to 6, characterized in that the proportion of the sulphobetaines is from 1 to 15% by weight, preferably from 2 to 10% by weight, in each case based on the total weight of the non-volatile constituents of the radiation-sensitive layer.

20 8. Recording material according to one or more of Claims 1 to 7, characterized in that the radiation-sensitive layer has been coloured using dyes and/or pigments.

25 9. Recording material according to one or more of Claims 1 to 8, characterized in that the diazonium salt is a condensation product of an aromatic diazonium salt.

30 10. Recording material according to one or more of Claims 1 to 9, characterized in that the weight of the dried radiation-sensitive layer is from 0.3 to 3.0 g/m², preferably from 0.5 to 2.0 g/m², particularly preferably from 0.6 to 1.6 g/m².

11. Recording material according to one or more of Claims 1 to 10, characterized in that it is pigmented or matted.

5 12. Recording material according to one or more of Claims 1 to 11, characterized in that the support is a plate, a film, a foil or a band of metal, plastic or a plastic/metal laminate.

10 13. Recording material according to Claim 12, characterized in that the support consists of aluminium or an aluminium alloy, where at least one side of the support has preferably been mechanically, chemically and/or electrochemically roughened, if desired also anodically oxidized and/or chemically aftertreated.

15 14. Recording material according to one or more of Claims 1 to 13, characterized in that the support has been provided with a back coating of polymeric materials.

20 15. Process for the production of a printing plate for offset printing, characterized in that a recording material according to one or more of Claims 1 to 14 is exposed imagewise and subsequently developed using an aqueous-alkaline developer.